

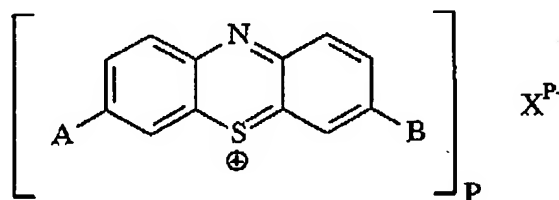
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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

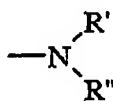
Claims 1-43 (Cancelled).

44. (Previously Presented) A method of treatment that requires removal, deactivation or killing of unwanted tissues or cells comprising administering to a patient in need thereof an amount of a phenothiazinium compound of Formula (I):



wherein:

A and B each independently is



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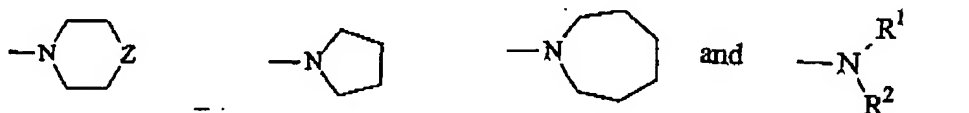
wherein R' and R" each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R" together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;

and wherein X^{P-} is a counteranion and P is 1, 2 or 3;

except for the compounds in which A and B are both either -N(CH₃)₂ or -N(CH₂CH₃)₂,

wherein said compound of Formula (I) is administered in an amount sufficient to effect said treatment.

45. (Previously Presented) The method according to claim 44 wherein, in the phenothiazinium compound of Formula (I), A and B are each independently selected from the group consisting of



wherein Z is selected from the group consisting of: CH₂, CH₂-C₁₋₆-alkyl, O, S, SO₂, NH, NCH₃, NC₂H₅, NCH₂CH₂OH, and NCOCH₃ and R¹ and R² are each independently linear or branched C_nH_{2n}Y, where n is 1-10, and Y is selected from the group consisting of: H, F, Cl, Br, I, -OH, -OCH₃, -OC₂H₅, -OC₃H₇, -CN and -OCOCH₃.

46. (Previously Presented) The method according to Claim 44 wherein, in the compound of Formula (I), the counteranion is selected from the group consisting of: F⁻, Br⁻, Cl⁻, I⁻, NO₃⁻, SCN⁻, ClO₃⁻, ClO₄⁻, IO₃⁻, BF₄⁻, HSO₄⁻, H₂PO₄⁻, CH₃SO₄⁻, N₃⁻, SO₄²⁻, HPO₄²⁻, PO₄³⁻, acetate,

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lactate, citrate, tartrate, glycolate, glycerate, glutamate, β -hydroxyglutamate, glucouronate, gluconate, malate and aspartate.

47. (Previously Presented) The method according to Claim 44 wherein, in the compound of Formula (I), the counteranion is selected from the group consisting of: Cl^- , Br^- , I^- , F^- , NO_3^- , HSO_4^- , CH_3CO_2^- , a dianion, and a trianion.

48. (Previously Presented) The method according to Claim 44 wherein, in the compound of Formula (I), A and B are the same or different and R^1 and R^2 are selected independently from the group consisting of: ethyl, n-propyl, n-butyl, i-butyl, n-pentyl, i-pentyl, n-hexyl, $\text{HO}(\text{CH}_2)_2-$, 2-ethylpiperidino, 2-methylpyrrolidino and cyclohexyl.

49. (Previously Presented) The method according to Claim 44 wherein, in the compound of Formula (I), A and B are the same or different and R^1 and R^2 are selected independently from the group consisting of ethyl, n-propyl, n-butyl, i-butyl, n-pentyl, i-pentyl, n-hexyl, 2-ethylpiperidino, 2-methylpyrrolidino and cyclohexyl.

50. (Previously Presented) The method according to Claim 44 wherein, in the compound of Formula (I), A and B are the same or different and R^1 and R^2 are selected independently from the group consisting of ethyl, n-butyl, i-butyl, n-pentyl, i-pentyl, n-hexyl, 2-ethylpiperidino, 2-methylpyrrolidino and cyclohexyl.

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51. (Previously Presented) The method according to Claim 44 wherein, in the compound of Formula (I), A and B are the same and both R¹ and R² are selected from the group consisting of n-propyl, n-butyl and n-pentyl.

52. (Previously Presented) A method of treatment that requires removal, deactivation or killing of unwanted tissues or cells comprising administering to a subject in need thereof a moiety selected from the group consisting of:

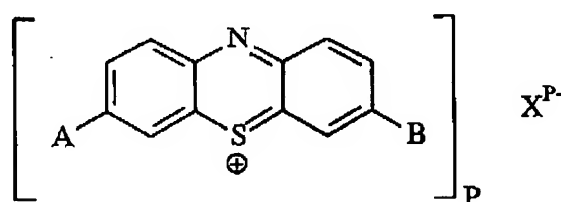
3,7-(tetra-n-propylamino)-phenothiazin-5-ium;
3,7-(tetra-n-butylamino)-phenothiazin-5-ium;
3,7-(tetra-n-pentylamino)-phenothiazin-5-ium;
3,7-(tetra-iso-pentylamino)-phenothiazin-5-ium;
3-(N,N-di-n-butylamino)-7-(N,N-di-n-propylamino)-phenothiazin-5-ium;
3-(N,N-di-n-hexylamino)-7-(N,N-di-n-propylamino)-phenothiazin-5-ium;
3-(2-ethylpiperidino)-7-(N,N-di-n-pentylamino)-phenothiazin-5-ium;
3-(2-methylpyrrolidino)-7-(N,N-di-n-pentylamino)-phenothiazin-5-ium;
3,7-(N,N-tetra-iso-butylamino)-phenothiazin-5-ium;
3-(N,N-di-n-butylamino)-7-(N,N-di-iso-pentylamino)-phenothiazin-5-ium;
3-(N,N-diethanolamino)-7-(N,N-di-n-pentylamino)-phenothiazin-5-ium;
3-(N,N-diethylamino)-7-(N,N-di-n-propylamino)-phenothiazin-5-ium;
3-(N,N-di-n-pentylamino)-7-(N,N-di-n-propylamino)-phenothiazin-5-ium
3-(N,N-di-n-butylamino)-7-(N,N-di-n-pentylamino)-phenothiazin-5-ium; and
3-((N-ethyl-N-cyclohexyl) amino)-7-((N-ethyl)-N-cyclohexyl) amino-phenothiazin-5-ium;
wherein the counteranion is selected from the group consisting of Cl⁻, Br⁻ and I⁻, and

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wherein said moiety is administered in an amount sufficient to effect said treatment.

53. (Previously Presented) A composition comprising one or more compounds of Formula

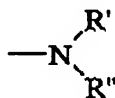
(I):



(I)

wherein:

A and B each independently is



wherein R' and R'' each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R'' together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;

and wherein X^{P-} is a counteranion and P is 1, 2 or 3;

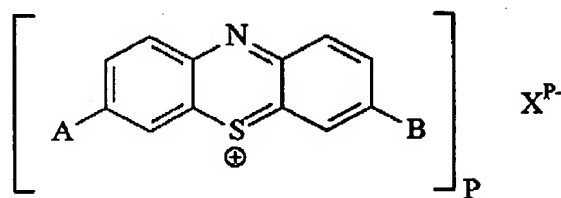
except for the compounds in which A and B are both either -N(CH₃)₂ or -N(CH₂CH₃)₂;

and a diluent or excipient.

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54-64 (Cancel).

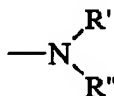
65. (Withdrawn) A conjugate or composite formed between a compound of formula (I):



(I)

wherein:

A and B each independently is

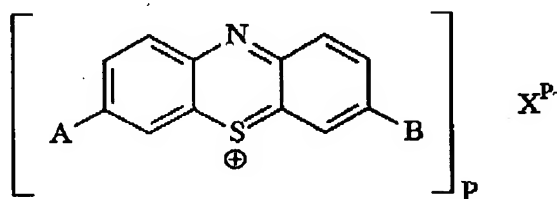


wherein R' and R" each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R" together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring,
 and wherein X^{P-} is a counteranion and P is 1, 2 or 3,
 except for the compounds in which A and B are both either —N(CH₃)₂ or —N(CH₂CH₃)₂,
 and a polymer.

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66. (Withdrawn) The conjugate or composite of claim 65 wherein said polymer includes anhydride and/or ester groups.

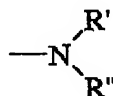
67. (Withdrawn) A compound formed by the reaction between a compound Formula (I):



(I)

wherein:

A and B each independently is



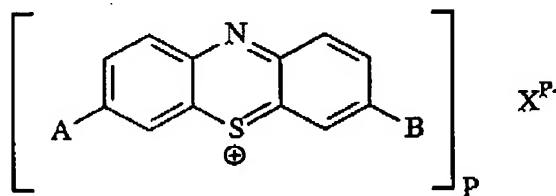
wherein R' and R" each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R" together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring,
 and wherein X⁻ is a counteranion and P is 1, 2 or 3,
 except for the compounds in which A and B are both either —N(CH₃)₂ or —N(CH₂CH₃)₂,
 and a chlorotriazine derivative.

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68. (Withdrawn) A compound according to claim 67 wherein the chlorotriazine derivative is a polymer having chlorotriazine groups attached thereto.

69. (Withdrawn) The conjugate or composite according to claim 65 further comprising a diluent or excipient.

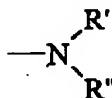
70. (Previously Presented) A method of treating pre-cancerous conditions, cancer, ophthalmological disease, vascular problems, arteriosclerosis, restenosis, autoimmune diseases, skin diseases and other benign conditions, the method comprising:
administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I):



(I)

wherein:

A and B each independently is



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wherein R' and R" each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R" together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;

and wherein X^{P-} is a counteranion and P is 1, 2 or 3;

except for the compounds in which A and B are both either -N(CH₃)₂ or -N(CH₂CH₃)₂; and exposing said subject to light to render active said compound.

71. (Previously Presented) The method according to claim 70 wherein said compound is administered and the light exposure is given up to 48 hours after a drug is initially administered.

72. (Previously Presented) The method according to claim 70 wherein said compound is administered and the light exposure is given up to 3 hours after a drug is initially administered.

73. (Previously Presented) The method according to claim 70 wherein R¹ and R² are both n-propyl and said light exposure is given up to 10 minutes after a drug is initially administered.

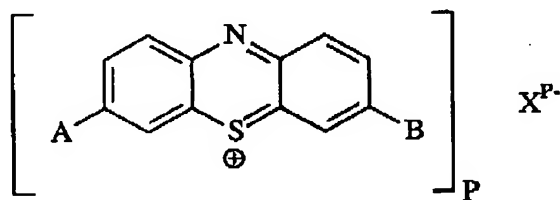
74. (Previously Presented) The method according to claim 71 wherein light exposure is given within 1 minute after a drug is initially administered.

75. (Previously Presented) The method according to claim 71 wherein light exposure is given at the point of drug administration.

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76. (Previously Presented) The method according to claim 70 wherein R^1 and R^2 are both n-pentyl and said light exposure is given up to one hour after a drug is initially administered.

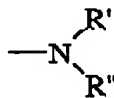
77. (Previously Presented) A method of treatment of microbial infections, burn wounds and other lesions and dental bacterial disease, the method comprising administering to a subject in need thereof, by systemic administration or by application to the area to be treated, a therapeutically effective amount of a compound of Formula (I):



(I)

wherein:

A and B each independently is



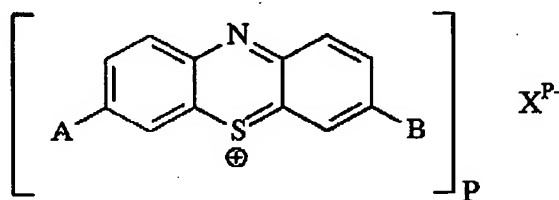
wherein R' and R'' each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R'' together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;
 and wherein X^{P-} is a counteranion and P is 1, 2 or 3;

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except for the compounds in which A and B are both either $\text{—N(CH}_3)_2$ or $\text{—N(CH}_2\text{CH}_3)_2$;
 and exposing said area to light to render active said compound.

78. (Previously Presented) The method according to claim 77 where R^1 and are n-butyl.

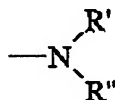
79. (Previously Presented) A method of sterilizing a surface or a fluid comprising:
 contacting or applying a compound of the Formula (I):



(I)

wherein:

A and B each independently is

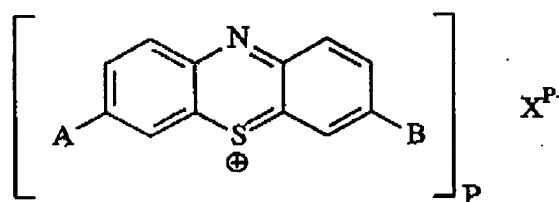


wherein R' and R'' each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R'' together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;
 and wherein $\text{X}^{\text{P-}}$ is a counteranion and P is 1, 2 or 3;

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except for the compounds in which A and B are both either $-N(CH_3)_2$ or $-N(CH_2CH_3)_2$;
 to said surface or fluid; and
 activating said compound by means of light.

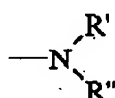
80. (Previously Presented) An article having at least one surface to which is attached a compound, conjugate or composite comprising a compound of Formula (I):



(I)

wherein:

A and B each independently is



wherein R' and R" each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R" together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;
 and wherein X^{P-} is a counteranion and P is 1, 2 or 3;
 except for the compounds in which A and B are both either $-N(CH_3)_2$ or $-N(CH_2CH_3)_2$.

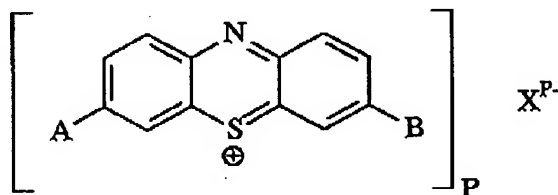
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81. (Previously Presented) The article according to claim 80 wherein attachment is by covalent bonds or by intermolecular interactions.

82. (Previously Presented) The article according to claim 80 wherein said article is a medical device.

83. (Previously Presented) The article according to claim 80 wherein said article is for use in the food industry.

84. (Previously Presented) A method for sterilizing fluids comprising contacting the fluid with a conjugate or composite formed between:
a compound of Formula (I):

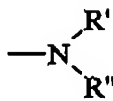


(I)

wherein:

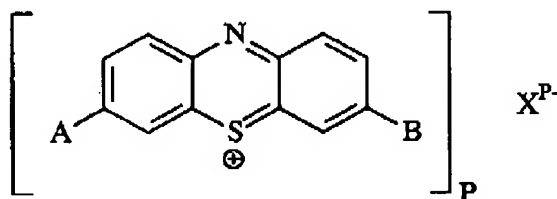
A and B each independently is

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wherein R' and R'' each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R'' together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring,
 and wherein X^{P-} is a counteranion and P is 1, 2 or 3,
 except for the compounds in which A and B are both either -N(CH₃)₂ or -N(CH₂CH₃)₂, and a polymer while the conjugate or composite is illuminated.

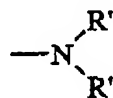
85. (Previously Presented) A compound of Formula (I)



(I)

wherein:

A and B each independently is



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wherein R' and R" each independently is a linear, branched or cyclic hydrocarbon group, or R' and R" together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;

and wherein X^{P-} is a counteranion and P is 1, 2 or 3;

except for the compounds in which A and B are the same and are selected from the group consisting of $-N(CH_3)_2$, $-N(CH_2CH_3)_2$, $N(n-Pr)_2$, $-N(n-Bu)_2$, $-N(n-Pent)_2$, $-N(n-Hex)_2$, $-N(n-Hept)_2$, piperidino, $-N(CH_2CH_2OH)_2$, and $-N(diethylhexyl)_2$,

and not including those in which A is selected from $-N(Me)_2$ or $-N(Et)_2$ and B is selected from the group consisting of: $-N(CH_2CH_2OH)_2$, piperidino, morpholino, thiomorpholino, $-N(Et)_2$, $-N(MeEt)$, and $-N(Me)_2$.

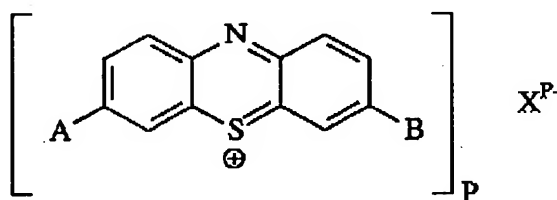
86. (Previously Presented) The compound according to claim 85 wherein said compound consists of a moiety selected from the group consisting of:

3,7-(tetra-iso-pentylamino)-phenothiazin-5-ium
3-(N, N-di-n-butylamino)-7-(N,N-di-n-propylamino)-phenothiazin-5-ium;
3-(N,N-di-n-hexylamino)-7-(N,N-di-n-propylamino)-phenothiazin-5-ium;
3-(2-ethylpiperidino)-7-(N,N-di-n-pentylamino)-phenothiazin-5-ium;
3-(2-methylpyrrolidino)-7-(N, N-di-n-pentylamino)-phenothiazin-5-ium;
3,7-(N,N-tetra- iso-butylamino)-phenothiazin-5-ium;
3-(N, N-di-n-butylamino)-7-(N, N-di-iso-pentylamino)-phenothiazin-5-ium;
3-(N, N-diethanolamino)-7-(N, N-di-n-pentylamino)-phenothiazin-5-ium;
3-(N, N-diethylamino)-7-(N, N-di-n-propylamino)-phenothiazin-5-ium;
3-(N, N-di-n-pentylamino)-7-(N, N-di-n-propylamino)-phenothiazin-5-ium;

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3-(N, N-di-n-butylamino)-7-(N, N-di-n-pentylamino)-phenothiazin-5-ium; and
 3-((N-ethyl-N-cyclohexyl)amino)-7((-N-ethyl)-N-cyclohexyl)amino-phenothiazin-5-ium;
 in which the counteranions are selected from the group consisting of: Cl⁻, Br⁻ and I⁻.

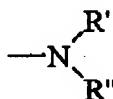
87. (New) A medicament comprising a compound of Formula (I):



(I)

wherein:

A and B each independently is



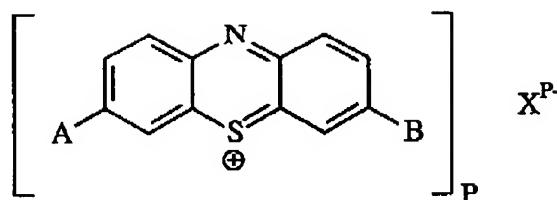
wherein R' and R'' each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R'' together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;

and wherein X^{P-} is a counteranion and P is 1, 2 or 3;

except for the compounds in which A and B are both either -N(CH₃)₂ or -N(CH₂CH₃)₂.

88. (New) An anticancer agent or an antibacterial or an antifungal or an antiviral comprising a compound Formula (I):

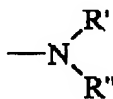
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(I)

wherein:

A and B each independently is



wherein R' and R'' each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R'' together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;

and wherein X^P is a counteranion and P is 1, 2 or 3;

except for the compounds in which A and B are both either -N(CH₃)₂ or -N(CH₂CH₃)₂.

89. (New) A method of treatment of microorganisms comprising administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 87 and exposing the compound to light to render the compound active.

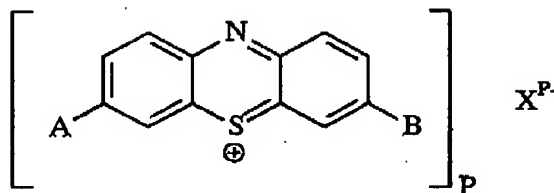
90. (New) A method according to claim 89 in which the microorganisms are bacteria.

91. (New) A method according to claim 90 in which the bacteria are antibiotic resistant bacteria.

92. (New) A PDT agent or a photodiagnostic agent comprising a compound of

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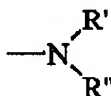
Formula (I):



(I)

wherein:

A and B each independently is



in which R' and R'' each independently is an optionally substituted linear, branched or cyclic hydrocarbon group, or R' and R'' together with the N atom to which they are attached form an optionally substituted 5-, 6- or 7-membered ring;

and where X^{P-} is a counteranion and P is 1, 2 or 3;

except for the compounds in which A and B are both either -N(CH₃)₂ or -N(CH₂CH₃)₂.

93. (New) A method of anti-microbial treatment for skin and other local infections, for sterilisation of burn wounds and other lesions, and for the treatment of dental bacterial disease comprising administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 87 and exposing the compound to light to render the compound active.

94. (New) A method of treatment of pre-cancerous conditions, cancer, ophthalmological disease including macular degeneration, vascular problems, arteriosclerosis, restenosis, autoimmune diseases, skin diseases and other benign conditions comprising administering to a

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subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 87 and exposing the compound to light to render the compound active.

95. (New) A method of sterilisation of surfaces and fluids comprising applying to or contacting with a photoactivated antimicrobial agent comprising a compound of Formula (I) as defined in claim 87 to the surface or fluid to be sterilised and exposing the compound to light to render the compound active.

96. (New) A method of photochemical internalisation comprising applying a compound of Formula (I) as defined in claim 87 to a subject to assist the uptake and subcellular localisation of drugs.

97. (New) A method of photodetection and/or photodiagnosis comprising applying a compound of Formula (I) as defined in claim 87 to a subject and exposing the compound to light to enhance fluorescence of a tumour.